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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,590	07/02/2007	Osamu Fujita	1560-0471PUS1	5637

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EXAMINER

DAY, HERNG DER

ART UNIT	PAPER NUMBER
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2128

NOTIFICATION DATE	DELIVERY MODE
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10/07/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/594,590	Applicant(s) FUJITA, OSAMU	
	Examiner HERNG-DER DAY	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2009 and 22 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-8,11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-8,11 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to Applicant's Amendment ("Amendment") to Office Action dated March 26, 2009, filed June 23, 2009, and RCE to Office Action dated July 9, 2009, filed July 22, 2009.

1-1. Claims 1 and 5 have been amended. Claims 9 and 10 have been canceled. Claims 11 and 12 have been added. Claims 1, 5-8, 11, and 12 are pending.

1-2. Claims 1, 5-8, 11, and 12 have been examined and rejected.

Specification

2. The disclosure is objected to because of the following informalities. Appropriate correction is required.

2-1. It appears that "this oop", as described in line 20 of paragraph [0019], should be "this loop".

2-2. As described in lines 1-3 of paragraph [0033], "when a condition is such that a value P_{in} of the importance of input data D_{in} is *greater than or equal to* a value $P(k)$ of the importance of data $R(k)$ in the register k , i.e., $P(k) \geq P_{in}$ ", the description and the equation are contradictory.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "a *controller* of the data processing apparatus" in line 2 of the newly added claim 11.

Claim Objections

4. Claim 12 is objected to because the “;” in line 16 of the claim should be replaced with “,”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6-1. Claim 11 recites “such as” in lines 7 and 12 of the claim. Claim 12 recites “such as” in line 13 of the claim. However, the phrase “such as” renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For the purpose of claim examination, the Examiner will presume that the limitations following the phrase “such as” are part of the claimed invention.

6-2. Claim 12 recites the limitation “the steps of *performing*” in line 16 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1 and 5-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Inoue et al., U.S. Patent Application Publication No. 2005/0188373 A1 published August 25, 2005, and filed February 20, 2004.

8-1. Regarding claim 1, Inoue et al. disclose a data processing apparatus, comprising:

a data storage unit that stores a plurality of data (the initial storage of the processor tasks 110 within the *shared memory 106*, paragraph [0067], lines 6-10);

a data processing unit that performs a processing for a data among the plurality of data (The main *processing unit 102A* may be used to schedule and orchestrate the processing of data and applications, paragraph [0065], lines 1-6) and computes an importance value of the data for assigning a subsequent processing priority to the data (the *priority levels* of the processor tasks 110 may be utilized to establish an order in which the processor tasks are executed, paragraph [0082], lines 13-15); and

an important component selection unit having a plurality of registers for storing a priority list, each register storing a set of an identifier indicating one of the data stored in the data storage unit and the importance value of the indicated data (The *task table 280* preferably includes a plurality of *task table entries T1, T2, T3*, etc. Each task table entry is preferably associated with one of the processor tasks 110, paragraph [0081]; The PRI preferably provides an indication as to a *priority level* of the *associated processor task 110*, paragraph [0082], lines 7-9);

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wherein the important component selection unit outputs one of the identifiers whose corresponding importance value is the highest in the importance values stored in the registers (the task queue 282 is searched for a *highest priority ready task*, paragraph [0088], lines 10-13);

wherein the data processing unit performs: processing for the data indicated by the output of the important component selection unit, updating data stored in the data storage unit whose values are changed by the processing (the sub-processing unit SPU1 changed the status of the processor task A to RUNNING, for example, as a result of executing processor task B, paragraph [0114], lines 1-4), computing the importance value of the each updated data, and transmitting the set of the importance value and corresponding identifier of the each updated data to the important component selection unit (a higher priority task, task A, may become *ready* for execution. This may occur due to some action by another sub-processing unit of the system, paragraph [0113], lines 10-13); and

wherein the important component selection unit updates the priority list to reflect the transmitted set of the importance value and identifier (the sub-processing units 102 maintain and *modify* the task table 280 and the task queue 282 during execution of the software application, paragraph [0088], lines 1-4), wherein, if the same identifier already exists in the priority list, the important component selection unit, comparing two importance values having the same identifier, excludes the lower one from the priority list (processor task A of a higher priority level was *not ready* to be executed and, therefore, was not selected for execution, paragraph [0109], lines 1-4; a higher priority processor task A is *not ready*, i.e., the real priority of the same processor task A is equivalent to lowest priority, therefore, processor task A is excluded for execution).

8-2. Regarding claim 5, Inoue et al. further disclose wherein

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the important component selection unit comprises a data arrangement control circuit, and wherein the data arrangement control circuit makes the plurality of registers hold the plurality of data in accordance with each importance value of the plurality of data (The *DMAC 206* controls accesses by the PU 204 and the sub-processing units 208 to the data and applications (e.g., the processor tasks 110) stored in the *shared DRAM 214*, paragraph [0074], lines 6-9).

8-3. Regarding claim 6, Inoue et al. further disclose wherein

a plurality of the data processing units are provided (The multi-processing system 100 includes a plurality of processors 102, paragraph [0063], lines 4-7).

8-4. Regarding claim 7, Inoue et al. further disclose wherein

A plurality of the data storage units (the main processing unit 102A may allocate a first area 106A of the shared memory 106 for storage of some processor tasks 110, and may allocate a second area 106B of the shared memory 106 for storage of other processor tasks 110, paragraph [0067], lines 14-18) and the important component selection units are provided (scheduling is preferably left to the SPUs themselves, paragraph [0065], lines 6-10).

8-5. Regarding claim 8, Inoue et al. further disclose comprising:

a first transfer control circuit that controls data transfer between the plurality of the data storage units and the plurality of the data processing units (The *DMAC 206* and the *memory interface 210* facilitate the transfer of data between the *DRAM 214* and the sub-processing units 208 and the PU 204 of the PE 200, paragraph [0073], lines 9-12); and

a second transfer control circuit that controls data transfer between the plurality of the important component selection units and the plurality of the data processing units (a bus interface (I/F) 258 for transmitting applications and data to and from the sub-processing unit 208, paragraph [0079], lines 1-3).

Allowable Subject Matter

9. Claims 11 and 12 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Applicant's Arguments

10. Applicant argues the following:

10-1. Specification

(1) "The Examiner further alleges that the specification fails to provide proper antecedent basis for the phrase, "a computer readable medium" as recited in line 1 of now cancelled claim 10. ... Although Applicant does not necessarily agree with the examiner objection, claim 10 has been cancelled and new claim 12 has been added through this Reply to address this issue." (Page 6, paragraph 3, Amendment)

10-2. Claim Objection

(2) "Claim 1 stands objected to for minor informalities. This claim has been amended through this Reply to address this issue." (Page 7, paragraph 1, Amendment)

10-3. Rejection Under § 112, First Paragraph and Second Paragraph

(3) "Although Applicant does not necessarily agree with the Examiner that the specification does not provide support for the above identified claim feature, claim 1 has been amended, claims 9 and 10 have been cancelled and claims 11 and 12 have been added through this Reply in order to expedite prosecution." (Page 7, paragraph 3, Amendment)

(4) “Although Applicant does not necessarily agree with the Examiner that claim 1 is indefinite, claim 1 has been amended through this Reply in order to expedite prosecution.”

(Page 7, the last paragraph, Amendment)

10-4. Claim Rejection - 35 U.S.C. § 101

(5) “Although Applicant respectfully disagrees with the Examiner’s contention that the claimed invention does not produce a useful, concrete, and tangible result, claim 1 has been amended, claims 9 and 10 have been cancelled and claims 11 and 12 have been added through this Reply in order to expedite prosecution.” (Page 9, paragraph 2, Amendment)

(6) “Although Applicants do not necessarily agree with the Examiner that claim 9 is improper method claim, this claim has been canceled and new method claim 11 has been added through this Reply to positively recite a "data processing apparatus" and a "controller" in order to expedite prosecution.” (Page 9, paragraph 4, Amendment)

Response to Arguments

11. Applicant’s arguments have been fully considered.

11-1. Applicant’s arguments (1) - (2) are persuasive. The objections to the specification and claim 1 in Office Action dated March 26, 2009, have been withdrawn. However, after further consideration, the specification is objected to as failing to provide proper antecedent basis for the claimed “a *controller* of the data processing apparatus” recited in line 2 of the newly added claim 11, as detailed in paragraph 3 above.

11-2. Applicant’s arguments (3) - (6) are persuasive. The rejections of claims 1 and 5-10 under 35 U.S.C. 112 and 101 in Office Action dated March 26, 2009, have been withdrawn.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kamini S. Shah can be reached on (571) 272-2279. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kamini S Shah/

Supervisory Patent Examiner, Art Unit 2128

/Herng-der Day/
Examiner, Art Unit 2128

September 30, 2009